



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Ref: 8EPR-N

Mr. Bronson Smart
State Conservation Engineer
U.S. Department of Agriculture, Natural Resources Conservation Service
Wallace F. Bennett Federal Building
125 South State Street, Room 4402
Salt Lake City, Utah 84138-1100

Subject: Logan Northern Canal
Reconstruction Project Draft Environmental
Impact Statement, CEQ #20110081

Dear Mr. Smart:

This letter is written in response to the Natural Resources Conservation Service (NRCS) Draft Environmental Impact Statement (DEIS) for the Logan Northern Canal Reconstruction Project (LNCRP). The U.S. Environmental Protection Agency Region 8 (EPA) provides its review in accordance with EPA's responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The proposed project is the reconstruction and modification of the Logan Northern (LN) and Logan-Hyde Park-Smithfield (LHPS) Canals in order to restore the conveyance of water for irrigation and municipal water supply to over 7,000 acres of agricultural land and cities in Cache County, Utah. A portion of the LN Canal breached in the spring of 2009, preventing its operation and, consequently, the delivery of water to permitted shareholders. The LNCRP will receive approximately \$20 million in Emergency Watershed Protection (EWP) funding. The DEIS evaluates four alternatives, including a no action alternative, and identifies the purple alternative as the preferred alternative. The action alternatives are variations on where or whether the LN Canal will be diverted into the existing LHPS Canal and the location of the replacement conveyance structure for the LN Canal itself.

EPA recommends the FEIS further characterize and quantify the project's impacts on flow in the Logan River and the aquatic community within the LN and LHPS Canals. It appears that groundwater may play an important role in maintaining flow in the Logan River, but the document does not characterize losses to flow as a result of reducing seepage from the currently unlined canals. While the DEIS recognizes the impacts to water resources, it does not provide mitigation for these resources. The U.S. Forest Service (USFS) has recommended minimum


instream flows of 5 cubic feet per second in the Logan River from the LHPS Canal POD to the USFS boundary to replace the flow lost to seepage. EPA recommends the FEIS further explore this option alongside a more rigorous characterization of impacts as a potential means to mitigate for impacts to flows, aquatic resources in the canal and the river, and water quality. Such an approach may not only be limited to the affected stretch of the Logan River on USFS land; it may also be appropriate for application to the LN Canal POD or further downstream, depending on the extent of effect on flows from reduced canal seepage.

The DEIS did not include information regarding a total maximum daily load (TMDL) completed for the Middle Bear River watershed and Cutler Reservoir. This TMDL includes an allocation for the Logan River watershed. EPA recommends the NRCS evaluate whether changes to assimilative capacity through a reduction in flow may affect attainment of this TMDL and include that information in the FEIS.

Consistent with Section 309 of the Clean Air Act, it is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. EPA's rating is for the preferred action alternative only. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action, EPA is rating this DEIS as Environmental Concerns – Insufficient Information, "EC-2". The EC-2 rating means EPA identified potential environmental impacts to air quality, water quality, wetlands, and cultural resources that should be avoided or reduced. EPA also concludes that the DEIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment. EPA did identify opportunities for additional information disclosure, characterization of impacts, and mitigation. A full description of EPA's EIS rating system is enclosed.

EPA appreciates the opportunity to provide comments. If we may provide further explanation of our comments, please contact Maggie Pierce at (303) 312-6550, or me at (303) 312-6004.

Sincerely,

A handwritten signature in black ink, appearing to read 'Larry Svoboda', with a long horizontal flourish extending to the right.

Larry Svoboda
Director, NEPA Compliance and Review Program
Ecosystems Protection and Remediation

**U.S. EPA Region 8 Detailed Comments
Draft Environmental Impact Statement
Logan Northern Canal Reconstruction Project**

Surface Water

EPA recommends the FEIS explicitly address and quantify reductions to flow in the Logan River as a result of this project. The preferred alternative will reduce flows to the section of the Logan River between the LHPS and LN Canal PODs through two mechanisms. One is transfer of the LN Canal diversions to the upstream LHPS Canal POD, and the second is the reduction of seepage flows into the Logan River from the canals by enclosing 5 miles of the currently unlined, open canal system. It is not clear if a more efficient canal system would result in a decreased need to divert and, consequently, increased flows in the Logan River.

The FEIS should explain whether the Logan River would experience an increase or decrease to flows as a result of this project. If the project will result in a net decrease to flows, the FEIS should at least estimate reductions to monthly average/median flows during wet, dry, and average flow years. An understanding of the changes to the magnitude, duration, and frequency of low-flow and various high-flow classes would provide the highest level of understanding. Additionally, the effects of the reduced canal seepage may be farther afield than those of the transfer of diversion from the LN Canal POD to the LHPS Canal POD. An understanding of the extent of impact from the reduced canal seepage would be extremely useful.

If there is a net reduction in flow, the FEIS should describe and quantify the source of the reduction. Based upon the information contained within the DEIS, it appears that groundwater plays an important role in sustaining flows in the Logan River. A portion of the Logan River beginning just below the LHPS Canal POD to an unknown endpoint is dewatered at times during the irrigation season. Seepage from the canal water in combination with groundwater and springs are identified as sources of flow recovery in the Logan River (Section 4.4.2.2). Moreover, Section 4.4.6.1 describes the Logan River as a gaining river from LHPS Canal POD to the First Dam and estimates that enclosing/lining the canals will lead to total seepage loss of 13,000 acre-feet per year (AF/yr). Of that 13,000 AF/yr reduction in seepage, 7,400 AF contribute to groundwater recharge (p. 5-88). Based upon these numbers, 5,600 AF would be lost from recharge to surface water (i.e., the Logan River unless a portion of the groundwater flow goes to another river). We recommend the DEIS explicitly address how much groundwater is currently contributing under a range of conditions and what portion of the reduced groundwater seepage would be lost from the Logan River, specifically during the irrigation season.

Water Quality

Impaired Waters

Section 4.4.6.2 incorrectly states that the Logan River has not been identified on the Utah's Clean Water Act Section 303(d) list because total phosphorus is a water quality indicator and not a water quality standard. The Logan River is not identified on Utah's Section 303(d) list because a total maximum daily load (TMDL) for total phosphorus has already been completed for the Middle Bear River watershed, which includes the Logan River, thus removing the Logan River from the Section 303(d) portion of Utah's integrated list.¹ Additionally, please note that although Utah may not have numeric water quality criteria for total phosphorus or other nutrients, its narrative water quality criteria apply and could provide a basis for including a waterbody on a Section 303(d) list for impairment from nutrients such as phosphorus.

The DEIS should clarify Sections 4.4.6.2 and 5.3.6.3 based upon the information above and determine whether this project may affect attainment of the load or wasteload allocations specified within the TMDL. Assimilative capacity could be reduced by the reduced seepage from the canals unless that seepage is offset. We recommend starting by addressing whether the project will result in an overall reduction to assimilative capacity in the system. If this is the case, a pollutant loading analysis would be necessary to demonstrate consistency with the requirements of the TMDL.

Stormwater

We appreciate the intent to acquire a stormwater construction permit from the Utah Division of Water Quality. However, EPA recommends more detail on how compliance with and implementation of best management practices prescribed by the permit will offset impacts from construction by minimizing sediment runoff. Table 5-8 includes the development of a stormwater management and maintenance program for the LHPS Canal between Logan Golf and Country Club and Lundstrom Park as a potential mitigation measure. We are unclear about the intent of the stormwater management and maintenance program, but support development of a stormwater pollution prevention plan as required by the Utah construction stormwater permit.

Biological Resources

EPA recommends the DEIS further characterize the impact of enclosing the currently open, unlined canals on the aquatic community in the Logan River and in the canals. The DEIS identifies some aquatic wildlife species that are present within the Logan River (Section 4.4.2.2), but does not characterize the fish or macroinvertebrate community with any quantified metrics to provide insight into ecological integrity of the community.

¹ <http://www.waterquality.utah.gov/TMDL/index.htm#approved>

Additionally, while the DEIS mentions that fish do enter into the canals, it does not describe what habitat or aquatic organisms would be affected by the enclosure of the canals in box culverts and pipes. While the ecological value of the canals may be low, it is important to justify such an assertion with data and information.

Environmental Justice

EPA recommends the FEIS describe whether outreach occurred to target the project area's population with limited English proficiency and if the project's impacts to properties represent a potential disproportionate impact to environmental justice communities. Section 5.2.3 discloses that some of the population in the study area has limited English proficiency and that Spanish is the most spoken language among people who speak a language other than English. The DEIS does not indicate whether reasonable measures were taken during public involvement to ensure this population had meaningful access to meetings and information regarding this proposed action.

In addition to identifying if any of these measures were taken, we also recommend clarifying whether residents or landowners of the properties affected by permanent easements/relocations include any individuals with limited English proficiency or if those properties are in low-income or minority-populated areas. The Purple Alternative will require the relocation of people living in 14 structures along Canyon Road (Section 5.2.1.3). If the properties are only within those areas that are low-income and minority, this impact is a potential disproportionate impact - as only low-income/minority persons would be affected or relocated.

Groundwater

The preferred alternative is estimated to reduce groundwater recharge by 7,400 AF/yr which is characterized as a 3 percent reduction in average annual groundwater recharge (Table 5-8). Section 5.3.6.6 recognizes the potential for cumulative impacts to occur but does not include any details regarding what reasonably foreseeable future actions may further exacerbate reductions to groundwater recharge. We recommend that the NRCS consider what future actions are likely that would also reduce groundwater recharge and, if appropriate, analyze the total cumulative reduction in groundwater recharge.

Mitigation

The DEIS acknowledges enclosure of the 3.4 miles of the currently open, unlined LN and LHPS Canals as an effect, but does not include any mitigation for this impact (Table 5-8). It does not describe length of the LN Canal that will be dewatered as a result of this project. We recommend that NRCS include additional information to justify the lack of mitigation for these impacts. Data and information describing the ecological value of the canals through metrics to assess community function and a description of what aquatic species are present would be useful.

EPA recommends further consideration and evaluation of the instream flow requirement recommended by the U.S. Forest Service (USFS) not only for the area on USFS land but also for the reach of the Logan River affected by this project. The USFS has recommended a minimum instream flow requirement of 5 cubic feet per second (cfs) for the portion of the Logan River from the LHPS Canal POD to the USFS boundary. The goal of this instream flow requirement is to replace the flow lost to the reduced seepage from enclosure of the canals. As described above in the Surface Water comments, it appears that groundwater seepage from the canals plays an important role in sustaining flows in the Logan River during critical periods of the irrigation season and throughout the year. Instream flows could offset project impacts associated with surface water, water quality (including TMDLs), and biological resources that may be, in part, attributable to the reduced seepage.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO -- Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC -- Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO -- Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU -- Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 -- Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 -- Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new, reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 -- Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.